

EXS-40-72  
5 December 1972

MEMORANDUM FOR: Charles G. Stefan  
Director, Office of Soviet and Eastern  
European Exchanges  
Department of State

ATTENTION : Yale W. Richmond  
John Kendall Ward

SUBJECT : Comments on Position Papers of OST's Six Working Groups

1. This memorandum is in response to your rush request of Friday, 1 December 1972 for our comments on the six OST papers. We understand that although Kirillin again, on 1 December, postponed his visit at the last moment you still have need for our memorandum on an urgent basis, i.e. by Tuesday, 5 December. Under these circumstances you will understand that it was possible to obtain the required comments from our Agency only. This includes consultation with three major Offices of the Agency. We also call to your attention the fact that at the personal request of Dr. David to a senior CIA official, the Agency has supplied detailed background papers to OST dealing with the areas covered by the six working groups.

2. As you requested, we have attempted to place each of the main fields in Category I, II, or III, with Category I including areas potentially most useful and interesting to the US. It became apparent, however, that most of the fields fall into Category II. We have, therefore, in a few cases where appropriate labelled some topics II+ or II-, with II+ being closer to I.

3. The Agricultural Program - we agree in general with the section entitled "USSR Probable Priorities", but make the following comments regarding the research proposals:

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EXEMPT FROM GENERAL DECLASSIFICATION  
SCHEDULE OF E. O. 11652, EXEMPTION CATEGORY:  
§ 52(1), (2), (3) or (4) (check one or more)  
Date Impossible To Determine  
(unless impossible, insert date)

- a) "The exploration, study, utilization, and preservation of germ plasm" - Category II. This seems to offer the greatest potential benefit to the US of the three proposals listed. It is questionable whether the project will be of equal value to both countries, however.
- b) "Livestock physiology as related to reproduction efficiency, animal nutrition, and product quality" - Category III. As reflected in production statistics, the US holds a clear advantage in livestock production, breeding, and quality. It is highly doubtful, therefore, that the proposal would be "of great benefit" to both countries or that it would "push forward the frontiers of knowledge leading to improved production of livestock". The Soviet livestock industry, especially the beef cattle industry, is still primitive compared to that of the US. Perhaps the most significant aspect, in regard to the proposal, is the USSR's extensive use of artificial insemination. However, the USSR's failure to develop fully a breeding program even with this base makes their quality control and breeding selection abilities suspect.
- c) "Technology and equipment systems for collecting, utilization, and disposal of animal wastes" - Category III. We are in general agreement with this section. It should be noted, however, that the level of concentration (i.e. feedlot operations) in the USSR is still relatively low. Manure handling technology is also not especially advanced. Once again the USSR seems to be in a position to benefit more from US technology in this field.

4. Chemical Catalysis - Category II. We agree in general with this paper. In regard to catalytic reactor modeling, the US may have more to learn than the paper indicates in application of this technique to actual production. The protection of proprietary information will probably serve to limit the participation of US firms at some point; the paper recognizes this fact.

5. Water Resources - Category II. We are in strong agreement with this paper; indeed it reflects CIA support provided earlier, as mentioned in paragraph 1 above. The US would gain in some fields, the USSR in others. For example, under item (1), the US should gain in the first three topics mentioned, but not in the fourth.

6. Energy - We concur with the paper in general. It is felt that the members of the working group know what is proprietary information and disadvantageous to reveal. The areas in general are more commercial than military in character. There will be a continuing need to safeguard proprietary information. Categories follow for the main topics under Energy: electric power plants - II-; electric power systems - II; MHD - II+ (the US and the USSR have different emphases in this field; a stand off); solar energy - II; and geothermal energy - II-. More detailed comments are:

a) We do not agree that in the areas of electric power plants and systems, and energy utilization there is a general advantage to the US, in terms of science and technology. The USSR is well advanced in long distance transmission and there might be a general advantage to the US in this area. In most other fields, however, we feel that the general advantage would be to the USSR. Obtaining an understanding of the Soviet power system and how it operates is interesting, but does not mean that we want to adopt their technology.

b) Grading of some specific topics in the attachment follows:

1) Electric Power Plants

- Item 1. - Soviet advantage
- Item 2. - USSR is ahead, but US has little interest
- Item 3. - Soviet advantage
- Item 4. - Mutual advantage
- Item 5. - Mutual advantage
- Item 6. - Soviet advantage
- Item 7. - Soviet advantage
- Item 8. - US advantage

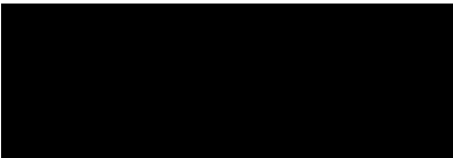
2) Electric Power Systems

- Item 1. - US advantage
- Item 2. - Mutual advantage
- Item 3. - Soviet advantage
- Item 4. - Soviet advantage
- Item 5. - Mutual advantage
- Item 6. - Soviet advantage

7. Application of Computers in Management - Category III. We concur with the paper in general, if there is strict adherence to the provision that there be no access to US computer hardware technology; the Soviets, however, will push for such access. There is nothing strategic mentioned in the paper, but some results could be used for military applications. The topics all appear to be aimed at practical applications rather than theoretical investigations. The limited practical experience of the Soviets is of little interest to the US, whereas the extensive experience and results on the US side would be of great benefit to the USSR. The topics are all in areas of immediate concern to the USSR, and benefits gained would be used to implement their plan for computerized planning and management of the economy. The tone of the report is that mutual benefit and reciprocity has been the goal and, although it is too early to tell, will be maintained. However, the proposals, at least in this area, appear to be very one sided.

8. Production of Substances by Microbiological Means - Category II. The paper presents a good assessment of the problems. The Soviets will gain some technology as the US leads in this field. We agree that it is necessary to have the Soviets provide an assessment of their capabilities, but at the same time the US side should push to see the actual capabilities, i.e. arrange for visits to Soviet microbiology industry centers when negotiating agreements. While the Soviets would gain technologically, the US could gain current information on actual Soviet capabilities. There would be some overall Soviet gain. The paper seems to contain nothing strategic, as it is unlikely the Soviets need the knowledge they would gain for purposes of BW. On page 3 of the paper, section IV lists five specific areas. The first two would result in Soviet gains, the next two should be about even, and the last (exchange of information) should be a US gain.

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Chairman  
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